

Fiscal Note

Rule Topic: Permit Term Extension from Five Years to Eight Years (522)

Rule Citation: 15A NCAC 02Q .0308 *Final Action on Permit Applications*

DENR Division: Division of Air Quality

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Impact Summary: State government: Yes
Local government: Yes
Substantial impact: Yes
Federal government: No

Authority: G.S. 143-215.3(a)(1); 143-215.108.

Necessity: In response to statutory revisions in North Carolina Session Law 2013-143, the Division of Air Quality (DAQ) is proposing one change to its permitting rule. The existing rule requires that a Title V permit and a non-Title V permit be issued for a period of five years. The revised rule will change the time period only for a non-Title V permit to eight years, as Federal rules and State General Statutes dictate a Title V permit period of five years.

I. Executive Summary

The purpose of this document is to conduct an evaluation of the costs and benefits associated with changes to one DAQ rule pertaining to non-Title V permits on their renewal frequency period. The new statute will amend the current rule's requirement for renewal frequency from five years to eight years for non-Title V permits. This change directly involves amending one rule:

- 15A NCAC 02Q .0308, Final Action on Permit Applications.

Table 1, Estimated Fiscal Impacts of the Proposed Amendment, shows the fiscal impacts of extending the time period of a non-Title V permit from five years to eight years. The total fiscal impacts of extending the non-Title V permit term from five years to eight years are estimated to be \$0.6 million to \$1.4 million during the sixth through eighth years (2019 through 2021), but there is no fiscal impact during the first five years (2014 through 2018). The maximum annual

impacts occur in the seventh and eighth year of the repeating eight-year cycles when cost savings of \$1.5 million are realized in 2037. Approximately six percent of permit renewals included in these calculations of the annual impact estimates are the result of implementation efforts by two of North Carolina local government air programs. For example, in 2021 about \$20,000 of the public sector impact of \$330,000 will incur to local government air program agencies

The net present value of the cost savings for these proposed amendments is estimated to equal \$5,548,000 over the period of this analysis. These rule amendments cause substantial economic impacts, as defined in the Administrative Procedures Act in N.C.G.S. 150B-21.4, meaning that the estimated impacts exceed \$1,000,000 in a 12-month period for 15 years of the analysis over a 40 year period. While the estimated impacts do not exceed \$1,000,000 every year, they do exceed \$1,000,000 for each of three consecutive years out of every eight year cycle as illustrated in Table 1. There are substantial economic impacts of opportunity costs and savings to State and local government agencies along with private sector cost and savings. However, the rule change itself has no impact beyond that created by the underlying statute since its purpose is solely to bring the related rule into agreement with the revised statute.

Table 1. Estimated Impacts of the Proposed Amendments

Fiscal Year (FY)	Permit Renewals		Change from Baseline		Annual Impact		
	Baseline: 5-Year Renewal Cycle	Proposed: 8-Year Renewal Cycle	Number of Non-Title V Renewals	Percent	DAQ* Opportunity Cost (+)/ Savings (-)	Private Sector Costs (+) or Savings (-)	Total Fiscal Impact
2014	390	390	0	0%	\$0	\$0	\$0
2015	458	458	0	0%	\$0	\$0	\$0
2016	516	516	0	0%	\$0	\$0	\$0
2017	584	584	0	0%	\$0	\$0	\$0
2018	486	486	0	0%	\$0	\$0	\$0
2019	390	153	-237	-61%	-\$152,000	-\$474,000	-\$626,000
2020	458	0	-458	-100%	-\$293,000	-\$916,000	-\$1,209,000
2021	516	0	-516	-100%	-\$330,000	-\$1,032,000	-\$1,362,000
2022	584	237	-347	-59%	-\$222,000	-\$694,000	-\$916,000
2023	486	458	-28	-6%	-\$18,000	-\$56,000	-\$74,000
2024	390	516	126	32%	\$81,000	\$252,000	\$333,000
2025	458	584	126	28%	\$81,000	\$252,000	\$333,000
2026	516	486	-30	-6%	-\$19,000	-\$60,000	-\$79,000
2027	584	153	-431	-74%	-\$276,000	-\$862,000	-\$1,138,000
2028	486	0	-486	-100%	-\$311,000	-\$972,000	-\$1,283,000
2029	390	0	-390	-100%	-\$250,000	-\$780,000	-\$1,030,000

* Approximately six percent of permit renewals included in these calculations of the annual impact estimates are the result of implementation efforts by the two local government air programs in North Carolina.

II. Background

North Carolina's air quality permitting program identifies and controls facilities with sources of air pollutant emissions. Air quality operating permits are issued for facilities considered stationary emission sources of air contaminants; non-stationary or mobile emission sources are not required to have permits. The issued permits specify limits on the quantity of air contaminants emitted and requirements for construction and operation of regulated of air contaminant sources. Permit conditions also specify the testing, monitoring, record keeping and reporting requirements applicable to each emission source at the facility. These requirements are the primary means for evaluating and demonstrating compliance with the emission limits established in each permit. The authority for issuing new permits and permit renewals is covered in North Carolina G.S. 143-215.3. This rule change for permit renewals applies to non-Title V facilities which are those determined to be Synthetic Minors and Small facilities, described later in Section V.

Operating permits are legally enforceable documents that permitting authorities issue to facility owners with air pollutant emission sources after the facility has begun to operate. Permits are issued to facilities after reviewing and evaluating permit applications for administrative and technical completeness and ensuring that each application meets regulatory adequacy criteria. The permit is written to meet specific state and federal regulations with conditions and constraints defining the facility process/production limits, the specific pollutants released and their emission limits, and the steps taken to reduce and control emissions. All permits also include mechanisms to demonstrate and document compliance with the permit conditions.

Due to the magnitude of the emissions involved, Title V permit requirements as mandated by the US EPA are much more extensive, costly, and resource-demanding than non-Title V permits. Title V permits are required to be renewed every five years per the Clean Air Act. For non-Title V permits, renewal periods are dictated by air quality rules established by state or local air agencies. North Carolina's permit terms for non-Title V facilities are being changed from five years to eight years per Session Law 2013-143.

Staff in the DAQ Central Office in Raleigh is responsible for reviewing applications and issuing Title V air permits for facilities operating in the 97 counties within DAQ's jurisdiction. Staff in the seven DAQ Regional Offices is responsible for issuing non-Title V permits in those same counties. In the other three counties in North Carolina, the responsibility for issuing both Title V and non-Title V permits is held by the local program offices for their respective jurisdictions, namely:

- Forsyth County Environmental Assistance and Protection
- Mecklenburg County Air Quality
- Western North Carolina Regional Air Quality Agency (for Buncombe County and the City of Asheville)

There are different factors or circumstances that trigger a permit application and issuance of another permit. Most common is the expiration date of the existing permit that triggers permit renewals and which accounts for approximately 50 percent of the number of permitting actions

issued by DAQ. The other half of non-Title V permitting staff actions is the result of several other duties and actions discussed later.

In the context of permitting, a new facility is defined as one that was not previously permitted. The resources needed to prepare a permit application for a new facility are greater than a renewal because much of the information required for a new permit application can be re-used without change in its renewal application. The term ‘modification’ means any physical change or change in method of facility operation that results in a change in emissions or affects compliance status of the source or facility. Such a modification would need to be incorporated into a revised permit while maintaining the same permit expiration date. Sometimes modifications are coincident with permit renewals. Normally the facility will hire a consultant to collect the requisite information and submit the permit application. There is no application fee assessed for permit renewals, but there are application fees for new permits and permit modifications. For the purpose of the fiscal note, the only cost impact determined to apply is the result in the change of the renewal frequency from five years to eight years for non-Title V permits.

The DAQ develops a permit renewal based on the information in the application submittal. Technical staff review the application to check the emission inventory calculations and determine whether any new state or federal regulations apply in terms of emission limits, testing, compliance and reporting requirements. A completeness review is the first step taken by DAQ to determine if:

1. All required application forms are submitted and completely filled out;
2. The application includes supporting materials and calculations necessary to review;
3. A Professional Engineer seal is in place (if required);
4. Modeling is required and performed by the applicant, the modeling protocol was submitted and reviewed for acceptance, and the modeling analysis must be submitted to DAQ. If DAQ performs the modeling, then the modeling requirements are not part of the completeness determination; and
5. Modeling is required, confirmation of the pollutants modeled must be requested by the applicant of the DAQ reviewer, if not already provided along with the application.

Depending on the type of permit, the draft permit review may be brief and straightforward, or may require more extensive involvement of the public, US EPA, and sometimes other states. Once the facility is in operation, regular emissions reporting and any compliance or enforcement activity associated with the permit are also recorded. The permit will stay in effect until its expiration date, or until any number of circumstances and considerations would change the permit’s integrity warranting a significant modification in the permit.

III. Description of Existing Rule

15A NCAC 02Q .0308, *Final Action on Permit Applications*. This rule defines the authority under the North Carolina General Statute (G.S.) 143, Article 21B which the DAQ Director has in issuing, rescinding, and denying permits for affected facilities. It also establishes the right to appeal the Director’s decision for the facility’s responsible party on any condition in an application or a permit under Article 3 of G.S. 150B. Finally, it establishes the term or time period for which the permit is in effect before it expires and must be renewed.

IV. Motivation for the Proposed Rule

The motivation for Session Law 2013-143 and the proposed rule is to reduce the economic impact of environmental rules on the affected industries while not interfering with the State's ability to attain federal air quality standards. It was also intended to improve and streamline the regulatory process, reduce unnecessary regulatory burden, and improve government efficiency. See Appendix B for statutory changes mandated by the North Carolina General Assembly.

V. Identification of the Affected Sources

Facilities with air pollutant emissions fall into one of four categories:

1. Title V -- those which emit or have the potential-to-emit (PTE) 100 tons per year (ton/yr) or more of any criteria air pollutant, or more than 10 ton/yr of any single hazardous air pollutant (HAP), or 25 ton/yr of total HAPs,
2. Synthetic Minors – those facilities with federally enforceable limits restricting their process/production rates and corresponding emissions or PTE to less than Title V levels,
3. Smalls – those facilities with emissions or PTE less than Title V levels without synthetic limits, or
4. Unpermitted – those with actual emissions less than five ton/year of criteria pollutant emissions that are exempt from permit requirements.

This rule change will affect facilities with non-Title V permits, which consist of Synthetic Minors and Smalls. These have emissions less than the above stated Title V thresholds as well as facilities without emission controls with greater than five ton/year of criteria pollutant emissions. The rule change will not affect facilities with Title V permits or the many unpermitted facilities without controls with actual emissions less than five ton/year of criteria pollutant emissions that are exempt from permit requirements.

There are more than 2,500 non-Title V facilities affected by the rule change consisting of over 1,800 small facilities and over 700 synthetic minor facilities in North Carolina. Table 2 presents the number of non-Title V facilities for each of the nine affected jurisdictions in North Carolina subject to the rule change from 5-year to 8-year permit term renewals. The information in Table 2 was derived from the DAQ IBEAM database for the seven DAQ regions and from records in the Buncombe County and Forsyth County local government programs.¹ Based on little fluctuation in the number of permitted facilities in the past few years, no net growth in the number of non-Title V permit renewals is assumed for this analysis as the number of new facilities is expected to be offset by the number of facility closures and the number of facilities transitioning from active to inactive status.

¹ The third local air quality government program in North Carolina is Mecklenburg County Air Quality (MCAQ). Non-Title V source permits issued by MCAQ do not expire and do not require renewal. MCAQ staff reviews facility permits at least annually to ensure that permits reflect current facility operating conditions.

Table 2. Number of Current Non-Title V Permits

Jurisdiction	Small Total	Synthetic Minor Total	Small and Synthetic Minor Total
Asheville Region	215	72	287
Fayetteville Region	164	73	237
Mooreville Region	370	108	478
Raleigh Region	267	148	415
Washington Region	169	54	223
Wilmington Region	98	47	145
Winston-Salem Region	360	145	505
Buncombe County Program	55	10	65
Forsyth County Program	56	23	79
Totals	1,754	680	2,434
Percent of Total	72%	28%	100%

VI. Establishment of the Regulatory Baseline

This section presents what the expenditures to affected parties would have been without the rule change. Under the current rule, facilities eligible for non-Title V permits are issued an air quality permit for a term of 5 years. For example, a permit issued on June 15, 2008 is in effect until its term expires 5 years later on June 14, 2013 at which time a permit renewal is required.

Facility owners can either hire a third-party consultant or direct one of their employees qualified to provide the information and forms requisite for a permit renewal application. For the purpose of this fiscal note, both options in preparing a permit renewal application are assumed to cost the same; either externalized cost to pay a consultant, or internalized cost of an employee displacing the opportunity to provide other needed services. A non-Title V permit renewal application provided by an engineering consultant is estimated to cost approximately \$2,000 on average. Recent cost estimates reported to DAQ by such consultants ranged from as little as \$600 for a small facility with few emission sources to as much as \$5,000 for a large synthetic minor facility with several emission sources. Table 3, Permit Renewal Cost Estimates, presents the permit renewal cost estimates, provided to DAQ by three experienced permitting consultants (sources), as well as the weighted averages representing a central tendency estimate. The mid-range rounded average of \$2,000 is used to compute costs to private sector facilities in later analyses.

Table 3. Permit Renewal Cost Estimates (Dollars, \$)

Permit Type	Range	Source 1	Source 2	Source 3	Average	Rounded Average
Small	Low	600	1,100	1,000	900	
	Mid	1,300	1,550	2,000	1,617	
	High	2,000	2,000	3,000	2,333	
Synthetic Minor	Low	1,500	1,200	3,000	1,900	
	Mid	2,750	2,600	4,000	3,117	
	High	4,000	4,000	5,000	4,333	
Small and Synthetic Minor	Low	Weighted Average ¹			1,180	\$1,200
	Mid	Weighted Average ¹			2,040	\$2,000
	High	Weighted Average ¹			2,900	\$2,900

¹ Weighted average based on the number of small and synthetic minor facilities.

Table 4, Baseline Permit Renewal Fiscal Impacts, presents annual projections over 40 years for the number of permit renewals for the five year term baseline case and the corresponding cost impacts. A 40-year period was selected because it represents the common denominator time cycle to capture the full effect of transitioning from a five-year to an eight-year renewal period. The information in Table 4 on the number of non-Title V permit renewals within each fiscal year was derived from the DAQ electronic database IBEAM and from records in the two local programs. Information on the level of effort to process permit renewals was acquired from each DAQ regional office and local program to develop the opportunity costs or savings. DAQ opportunity costs, estimated at about \$640/permit, were developed by multiplying the number of permit renewals each year by the estimated number of hours spent on a permit renewal times the permit engineer average annual salary and benefits. Permit renewal cost estimate information presented in Table 3 provided the basis for the cost impacts to the private industry. Approximately six percent of permit renewals included in these calculations of the annual impact estimates are the result of implementation efforts by the two local government air programs in North Carolina. For example, in 2021 about \$20,000 of the public sector impact of \$330,000 will incur to local government air program agencies. The cost impacts are based on the projected number of non-Title V permit renewals that would have occurred under the current rule for a five-year permit renewal cycle and include three categories:

1. Opportunity cost/savings to DAQ and the two affected local program agencies,
2. Private sector cost/savings to the affected industries with permitted facilities, and
3. The total of items 1 and 2.

Table 4. Baseline Projected Expenditures from Five-Year Permit Renewals

Fiscal Year (FY)	Permit Renewals	Annual Fiscal Impact		
	Baseline: 5-Year Renewal Cycle	DAQ Opportunity Cost/Savings	Private Sector Costs or Savings (-)	Total Baseline
2014	390	\$249,600	\$780,000	\$1,029,600
2015	458	\$293,100	\$916,000	\$1,209,100
2016	516	\$330,200	\$1,032,000	\$1,362,200
2017	584	\$373,800	\$1,168,000	\$1,541,800
2018	486	\$311,000	\$972,000	\$1,283,000
2019	390	\$249,600	\$780,000	\$1,029,600
2020	458	\$293,100	\$916,000	\$1,209,100
2021	516	\$330,200	\$1,032,000	\$1,362,200
2022	584	\$373,800	\$1,168,000	\$1,541,800
2023	486	\$311,000	\$972,000	\$1,283,000
2024	390	\$249,600	\$780,000	\$1,029,600
2025	458	\$293,100	\$916,000	\$1,209,100
2026	516	\$330,200	\$1,032,000	\$1,362,200
2027	584	\$373,800	\$1,168,000	\$1,541,800
2028	486	\$311,000	\$972,000	\$1,283,000
2029	390	\$249,600	\$780,000	\$1,029,600
2030	458	\$293,100	\$916,000	\$1,209,100
2031	516	\$330,200	\$1,032,000	\$1,362,200
2032	584	\$373,800	\$1,168,000	\$1,541,800
2033	486	\$311,000	\$972,000	\$1,283,000
2034	390	\$249,600	\$780,000	\$1,029,600
2035	458	\$293,100	\$916,000	\$1,209,100
2036	516	\$330,200	\$1,032,000	\$1,362,200
2037	584	\$373,800	\$1,168,000	\$1,541,800
2038	486	\$311,000	\$972,000	\$1,283,000
2039	390	\$249,600	\$780,000	\$1,029,600
2040	458	\$293,100	\$916,000	\$1,209,100
2041	516	\$330,200	\$1,032,000	\$1,362,200
2042	584	\$373,800	\$1,168,000	\$1,541,800
2043	486	\$311,000	\$972,000	\$1,283,000
2044	390	\$249,600	\$780,000	\$1,029,600
2045	458	\$293,100	\$916,000	\$1,209,100
2046	516	\$330,200	\$1,032,000	\$1,362,200
2047	584	\$373,800	\$1,168,000	\$1,541,800
2048	486	\$311,000	\$972,000	\$1,283,000
2049	390	\$249,600	\$780,000	\$1,029,600
2050	458	\$293,100	\$916,000	\$1,209,100
2051	516	\$330,200	\$1,032,000	\$1,362,200
2052	584	\$373,800	\$1,168,000	\$1,541,800
2053	486	\$311,000	\$972,000	\$1,283,000

VII. Change from the Baseline: Estimated Impacts for the Proposed Permit Renewal Cycle

Under the existing rule, facilities eligible for non-Title V permits are issued an air quality permit for five years. Under the proposed new rule, facilities with non-Title V permits will be issued a permit for eight years. A conservative assumption is made that there is no significant change in the level of effort to prepare, review, or issue permit renewals for a term of five years relative to one of eight years. It is also assumed that the number of renewals for newly permitted facilities after 2014 is offset by the number of permit recessions (*i.e.*, plant closures). The cost impacts are based on the projected number of permit renewals under the proposed rule change over 40 years and include the same three categories as in the baseline case.

The changes from the baseline include the cost to the facility owners for preparation of the permit renewal. Identical to the baseline case, facility owners can either hire a consultant or direct one of their employees qualified to prepare a permit renewal application. As mentioned in the baseline case, either option in preparing a permit renewal application is assumed to cost the facility owner the same amount.

Table 5, Projected Expenditures from Proposed Eight-Year Permit Renewals, presents annual projections over 40 years for the number of permit renewals for the proposed eight year term case and the corresponding cost impacts. The same 40-year period was used as in the baseline case. The cost information to derive the cost impacts in Table 5 for the changes from the baseline were developed on the same basis and in the same manner as those developed in Table 4 for the baseline case. The only key difference between Table 4 and Table 5 is the cost impact calculation due to switching from a five-year to an eight-year permit renewal cycle.

Table 6, Changes from Baseline Revenue and Expenditures, presents the projections for the changes in the costs/savings to affected State agencies and to the affected industry holding non-Title V permits. The cost information to derive the cost impacts in Table 6 for the changes from the baseline were developed on the same basis and in the same manner as those developed in Table 4 and Table 5.

Table 5. Projected Expenditures from Proposed Eight-Year Permit Renewals

Fiscal Year (FY)	Proposed: 8-Year Renewal Cycle	Annual Fiscal Impact		
		DAQ Opportunity Cost	Private Sector Costs	Total Proposed
2014	390	\$249,600	\$780,000	\$1,029,600
2015	458	\$293,100	\$916,000	\$1,209,100
2016	516	\$330,200	\$1,032,000	\$1,362,200
2017	584	\$373,800	\$1,168,000	\$1,541,800
2018	486	\$311,000	\$972,000	\$1,283,000
2019	153*	\$97,900	\$306,000	\$403,900
2020	0	\$0	\$0	\$0
2021	0	\$0	\$0	\$0
2022	237*	\$151,700	\$474,000	\$625,700
2023	458	\$293,100	\$916,000	\$1,209,100
2024	516	\$330,200	\$1,032,000	\$1,362,200
2025	584	\$373,800	\$1,168,000	\$1,541,800
2026	486	\$311,000	\$972,000	\$1,283,000
2027	153	\$97,900	\$306,000	\$403,900
2028	0	\$0	\$0	\$0
2029	0	\$0	\$0	\$0
2030	237	\$151,700	\$474,000	\$625,700
2031	458	\$293,100	\$916,000	\$1,209,100
2032	516	\$330,200	\$1,032,000	\$1,362,200
2033	584	\$373,800	\$1,168,000	\$1,541,800
2034	486	\$311,000	\$972,000	\$1,283,000
2035	153	\$97,900	\$306,000	\$403,900
2036	0	\$0	\$0	\$0
2037	0	\$0	\$0	\$0
2038	237	\$151,700	\$474,000	\$625,700
2039	458	\$293,100	\$916,000	\$1,209,100
2040	516	\$330,200	\$1,032,000	\$1,362,200
2041	584	\$373,800	\$1,168,000	\$1,541,800
2042	486	\$311,000	\$972,000	\$1,283,000
2043	153	\$97,900	\$306,000	\$403,900
2044	0	\$0	\$0	\$0
2045	0	\$0	\$0	\$0
2046	237	\$151,700	\$474,000	\$625,700
2047	458	\$293,100	\$916,000	\$1,209,100
2048	516	\$330,200	\$1,032,000	\$1,362,200
2049	584	\$373,800	\$1,168,000	\$1,541,800
2050	486	\$311,000	\$972,000	\$1,283,000
2051	153	\$97,900	\$306,000	\$403,900
2052	0	\$0	\$0	\$0
2053	0	\$0	\$0	\$0

* Of the 390 permit renewals that were scheduled to occur in 2014, 153 were completed prior the statute becoming effective and these permit received renewal dates in 2019. The remaining 237 permits have renewal dates in 2022. This establishes the 8-year repeating pattern where the 7th and 8th year have zero permit renewals

Table 6. Annual Fiscal Impacts for Change from Baseline to Proposed Renewal Cycle

Fiscal Year (FY)	Permit Renewals		Change from Baseline		Annual Fiscal Impact Costs (+) or Savings (-)		
	Baseline: 5-Year Renewal Cycle	Proposed: 8-Year Renewal Cycle	Number of Non-Title V Renewals	Percent	DAQ* Opportunity Cost (+) or Savings (-)	Private Sector Costs (+) or Savings (-)	Total Fiscal Impact
2014	390	390	0	0%	\$0	\$0	\$0
2015	458	458	0	0%	\$0	\$0	\$0
2016	516	516	0	0%	\$0	\$0	\$0
2017	584	584	0	0%	\$0	\$0	\$0
2018	486	486	0	0%	\$0	\$0	\$0
2019	390	153	-237	-61%	-\$152,000	-\$474,000	-\$626,000
2020	458	0	-458	-100%	-\$293,000	-\$916,000	-\$1,209,000
2021	516	0	-516	-100%	-\$330,000	-\$1,032,000	-\$1,362,000
2022	584	237	-347	-59%	-\$222,000	-\$694,000	-\$916,000
2023	486	458	-28	-6%	-\$18,000	-\$56,000	-\$74,000
2024	390	516	126	32%	\$81,000	\$252,000	\$333,000
2025	458	584	126	28%	\$81,000	\$252,000	\$333,000
2026	516	486	-30	-6%	-\$19,000	-\$60,000	-\$79,000
2027	584	153	-431	-74%	-\$276,000	-\$862,000	-\$1,138,000
2028	486	0	-486	-100%	-\$311,000	-\$972,000	-\$1,283,000
2029	390	0	-390	-100%	-\$250,000	-\$780,000	-\$1,030,000
2030	458	237	-221	-48%	-\$141,000	-\$442,000	-\$583,000
2031	516	458	-58	-11%	-\$37,000	-\$116,000	-\$153,000
2032	584	516	-68	-12%	-\$44,000	-\$136,000	-\$180,000
2033	486	584	98	20%	\$63,000	\$196,000	\$259,000
2034	390	486	96	25%	\$61,000	\$192,000	\$253,000
2035	458	153	-305	-67%	-\$195,000	-\$610,000	-\$805,000
2036	516	0	-516	-100%	-\$330,000	-\$1,032,000	-\$1,362,000
2037	584	0	-584	-100%	-\$374,000	-\$1,168,000	-\$1,542,000
2038	486	237	-249	-51%	-\$159,000	-\$498,000	-\$657,000
2039	390	458	68	17%	\$44,000	\$136,000	\$180,000
2040	458	516	58	13%	\$37,000	\$116,000	\$153,000
2041	516	584	68	13%	\$44,000	\$136,000	\$180,000
2042	584	486	-98	-17%	-\$63,000	-\$196,000	-\$259,000
2043	486	153	-333	-69%	-\$213,000	-\$666,000	-\$879,000
2044	390	0	-390	-100%	-\$250,000	-\$780,000	-\$1,030,000
2045	458	0	-458	-100%	-\$293,000	-\$916,000	-\$1,209,000
2046	516	237	-279	-54%	-\$179,000	-\$558,000	-\$737,000
2047	584	458	-126	-22%	-\$81,000	-\$252,000	-\$333,000
2048	486	516	30	6%	\$19,000	\$60,000	\$79,000
2049	390	584	194	50%	\$124,000	\$388,000	\$512,000
2050	458	486	28	6%	\$18,000	\$56,000	\$74,000
2051	516	153	-363	-70%	-\$232,000	-\$726,000	-\$958,000
2052	584	0	-584	-100%	-\$374,000	-\$1,168,000	-\$1,542,000
2053	486	0	-486	-100%	-\$311,000	-\$972,000	-\$1,283,000

* Approximately six percent of permit renewals (144 of 2434) included in the DAQ calculations of the annual impact estimates are the result of implementation efforts by the two local government air programs in North Carolina.

Table 7, Net Present Value of the Impacts, calculates the net present value of the cost savings to be \$5,548,000 during the implementation of these proposed amendments, using a seven percent discount factor according to N.C.G.S. 150B-21.4(b1)(5).

Table 7. Net Present Value of the Impacts¹

Present Value	Baseline	Proposed Rule	Change from Baseline	Percent Change
Permit Renewal Period	5-Year Cycle	8-Year Cycle	Savings (-)	
Affected Party				
DAQ ² Level of Effort	\$4,404,000	\$3,059,000	-\$1,345,000	-31%
Facility Permit Renewal	<u>\$13,762,000</u>	<u>\$9,559,000</u>	<u>-\$4,203,000</u>	-31%
Total Impact	\$18,166,000	\$12,618,000	-\$5,548,000	-31%

¹ Assumes a 7% discount factor on fiscal impacts.

² Includes implementation efforts by the two local government air programs in NC, which is a small fraction of the total.

In looking at the present value impact of the rule change, the estimates show an overall 31 percent reduction in the level of effort to process non-Title V permit renewals on a less frequent basis for State and local governments over the 40 year period. However, these estimates show mixed results; during the first 5 years there was no change from the baseline, in 10 out of 40 years there are no renewals, and in another 10 years there is a small to moderate increase in the level of effort (workload) to process non-Title V permit renewals for State and local governments. Such a non-constant, ever-changing workload is common for North Carolina government agencies, which face responsibility levels above their available resource levels. To manage such workload situations, the practice of DAQ and the local programs is to evaluate and prioritize their task requirements relative to available resources and decide how best to apply staff and related resources on a regular basis. While the current workload to process permit renewals is expected to drop during three out of every eight years, there will still be responsibilities above available resource levels to handle the other non-Title V, non-renewal permitting and compliance activities in the affected government regional and local program offices. These other current efforts include:

1. Non-Title V permit:
 - Administrative amendments,
 - Changes in ownership and name changes,
 - New facility applications,
 - Modifications,
 - Permit applicability determinations,
 - Notice of intent to construct, and
 - Tax certifications;
2. Title V permit technical input, reviews, close-outs, renewals, compliance inspections and emission test observations;
3. Other DENR permits such as mining and A-95;

4. Customer service on public records request responses;
5. Emission inventory reviews and processing;
6. Compliance issues; and
7. Compliance assistance to facilities on new federal rule requirements.

In addition to re-prioritizing current workload tasks, new efforts are expected to be assigned to permit engineers during the three year periods when the current workload to process permit renewals is expected to drop. Expected new assignments could include:

- Develop a new electronic permit renewal system,
- Communicating new federal rule requirements to affected non-Title V facilities that would have been incorporated in the permits at the five-year renewal point; and
- Conduct compliance inspections and emission test observations for roughly 100 affected facilities with a total of roughly 1,000 affected boilers scheduled for 2018 and 2019 in response to the transition from state-issued Clean Air Act Section 112(j) permit requirements to implementation of the EPA Industrial Boiler Maximum Achievable Control Standards Section 112(d) Subpart DDDDD requirements.

VIII. Risk and Uncertainty

This economic analysis relies upon several estimates and assumptions of cost, growth, and level of effort that could contribute to significant error in the resulting projection. To the extent that deviations occurred in the underlying estimate and assumption, the projection will be off accordingly. For example, if the estimate of the permit renewal application cost of \$2,000 were understated, then the cost/savings impact to affected facilities would be underestimated accordingly.

The estimates in the level of effort for State and local government engineers to review non-Title V permit renewal applications before issuing permit renewals have a certain degree of uncertainty. Although these estimates are based on judgment made by each jurisdictional office, there was a difference between the lowest and highest estimates. While records of the number of facilities with non-Title V permits are maintained systematically and accurately, there is no systematic, precise reporting mechanism for the level of effort applied for permit renewals as a separate line item. Consequently, these estimates could be a small source of uncertainty.

Records on the current number of facilities with non-Title V permits in the DAQ and local programs are maintained in databases and updated on a timely basis as a high priority. However, if the assumed zero growth in the population of facilities to which the growth is applied were to drop in the future due to exemption from lowering the emission level threshold for permitting small facilities, then the number of facilities affected would be overestimated accordingly. Similarly, if another economic downturn as happened in 2008 were to occur and there would be a trend of facility closures, then the forecast projections would be off accordingly.

The cost estimates provided by the consultants for preparing non-Title V permit applications have a certain degree of uncertainty. These estimates were made largely from memory from consultants with a long history in permitting but without a rigorous review of past contracts. It is

assumed that the costs of a typical permit renewal in the recent past will apply to those in the future, which could be a source of uncertainty. In addition to this rule change on permit terms, other recent air quality rule changes are, or will have the effect of, reducing the regulatory burden and cost on affected facilities for permit renewals. While these other rule changes will help to further reduce the cost of permit renewals in future years, the extent of the reduction is difficult to isolate and define. Collectively, the circumstances above provide uncertainty to the cost estimates herein.

When compared to the baseline projection of permit renewals, there is a wide range of impacts mostly caused by zero renewals that first occur in years 2020 and 2021. Appendix C provides a sensitivity analysis detailing the assumptions and resulting forecast variability found in the calculation of impacts in the fiscal note. The maximum change from baseline impacts in any 12 month period range from \$3.2 million in cost-savings to \$1.5 million in added opportunity cost compared to a baseline with a 5-year renewal pattern.

IX. Consideration of Alternatives

The statutory revision was specific by using uncomplicated language to extend the permit term from five years to eight years. Had the General Assembly been interested in the consideration and evaluation of other alternatives to amend the DAQ rule, they would have directed or suggested some measure to do so. To not amend the DAQ rule to be consistent with the statutory amendment would be unlawful. Given such circumstances, DAQ is left with no other lawful alternative than to propose an amendment to the air quality rules without alternatives to bring the related rule into agreement with the revised statute.

An alternative that was considered would help to level out the reduction in permit renewals compared to the fluctuation from the baseline. An amendment to the statutory language could allow for a phased-in approach to adjust the renewal schedule to manage staff workload by using permit term extensions renewal schedule from a workload management perspective. This could be done in a way that reduced the peak renewal years and to fill in the gap years when zero renewals would have occurred. This alternative would provide a more level reduction in workload with less variability in the non-title V permit renewals, and thereby resulting in non-substantial economic impacts.

X. Conclusions

There would be substantial economic impacts from the revised statute, but the rule change itself has no impact beyond that created by the statute since its purpose is solely to bring the related rule into agreement with the revised statute. There are substantial impacts of opportunity costs and savings to State and local government agencies along with private sector cost and savings. Approximately six percent of permit renewals included in these calculations are the result of implementation efforts by the two local government air programs in North Carolina.

The total fiscal impacts of extending the non-Title V permit term from five years to eight years are estimated to be \$0.6 million to \$1.4 million during the sixth through eighth years (2019 through 2021), but there is no fiscal impact for the first five years (2014 through 2018). The

fullest cost-saving impacts are realized in later eight-year cycles that reach higher levels of \$1.5 million in 2037 and 2052. Collectively, there are 15 years for which the fiscal impact ranges between \$0 and \$512,000 in costs. The net present value of the impact for the proposed amendment is estimated to equal \$5,548,000 in net savings over the period of this analysis. These rule amendments cause substantial economic impacts, as defined in the Administrative Procedures Act in N.C.G.S. 150B-21.4, meaning that the estimated impacts exceed “one million dollars (\$1,000,000) in a 12-month period.”

1 **Appendix A. Proposed Rule Changes**

2
3
4 15A NCAC 02Q .0308 is proposed for amendment as follows:

5
6 **15A NCAC 02Q .0308 FINAL ACTION ON PERMIT APPLICATIONS**

7 (a) The Director may:

- 8 (1) issue a permit, permit modification, or a renewal containing the conditions
9 necessary to carry out the purposes of G.S. 143, Article 21B;
10 (2) rescind a permit upon request by the permittee;
11 (3) deny a permit application when necessary to carry out the purposes of G.S. 143, Article
12 21B.

13 (b) Any person whose application for a permit, permit modification, renewal or letter requesting
14 change in name or ownership, construction or test date, or reporting procedure, is denied or is granted
15 subject to conditions which are unacceptable to him shall have the right to appeal the Director's
16 decision under Article 3 of G.S. 150B. The person shall have 30 days following receipt of the notice of
17 the Director's decision on the application or permit in which to appeal the Director's decision. The
18 permit becomes final if the applicant does not contest the permit within this 30-day period.

19 (c) The Director shall issue or renew a permit for a ~~period of time that the Director considers~~
20 ~~reasonable, but such period shall not exceed five years.~~ term of eight years.

21
22 *History Note: Filed as a Temporary Adoption Eff. March 8, 1994 for a period of 180 days or until the*
23 *permanent rule becomes effective, whichever is sooner;*

24 *Authority G.S. 143-215.3(a)(1); 143-215.108;*

25 *Amended Eff. January 1, 2015; Eff. July 1, 1994.*
26
27

Appendix B. Legislative Changes

GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2013 SESSION LAW 2013-413 HOUSE BILL 74

AN ACT TO IMPROVE AND STREAMLINE THE REGULATORY PROCESS IN ORDER TO STIMULATE JOB CREATION, TO ELIMINATE UNNECESSARY REGULATION, TO MAKE VARIOUS OTHER STATUTORY CHANGES, AND TO AMEND ENVIRONMENTAL AND NATURAL RESOURCES LAWS.

The General Assembly of North Carolina enacts:

SECTION 29. G.S. 143-215.108 reads as rewritten:

"§ 143-215.108. Control of sources of air pollution; permits required....

(d1) No Title V permit issued pursuant to this section shall be issued or renewed for a term exceeding five years. All other permits issued pursuant to this section shall be issued for a term ~~not to exceed~~of eight years.

(e) A permit ~~applicant or permittee~~applicant, permittee, or third party who is dissatisfied with a decision of the Commission may commence a contested case by filing a petition under G.S. 150B-23 within 30 days after the Commission notifies the applicant or permittee of its decision. If the permit ~~applicant or permittee~~applicant, permittee, or third party does not file a petition within the required time, the Commission's decision on the application is final and is not subject to review....."

s/ Philip E. Berger, President Pro Tempore of the Senate, s/ Thom Tillis, Speaker
of the House of Representatives, s/ Pat McCrory, Governor
Approved 10:53 a.m. this 23rd day of August, 2013

...

Appendix C. Sensitivity Analysis

This appendix shows how variations in the following assumptions could affect the estimated impact of the proposed rule change:

Assumption 1: Percent Change from Baseline (see column 5 in Table 6)

Distribution Assumed:

Uniform

Range of Variation:

Minimum: -100%

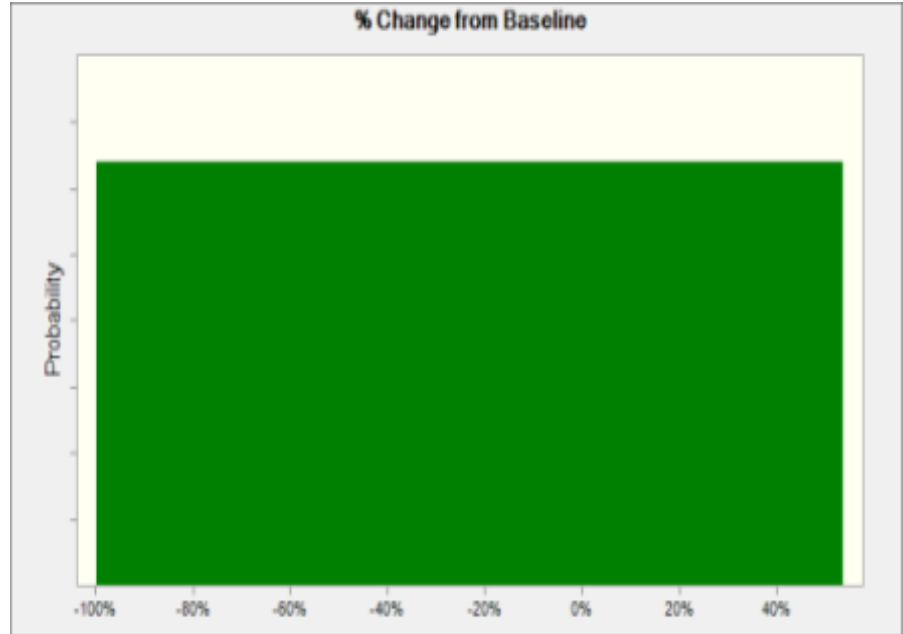
Maximum: 54%

Correlated with:

Annual Number of
Facilities Impacted

Coefficient: 0.99

(Assumption 3, see below)



Assumption 2: Percent FTE Spent on Renewals (see Section VI that discusses the \$640/permit cost estimate for DAQ)

Distribution Assumed:

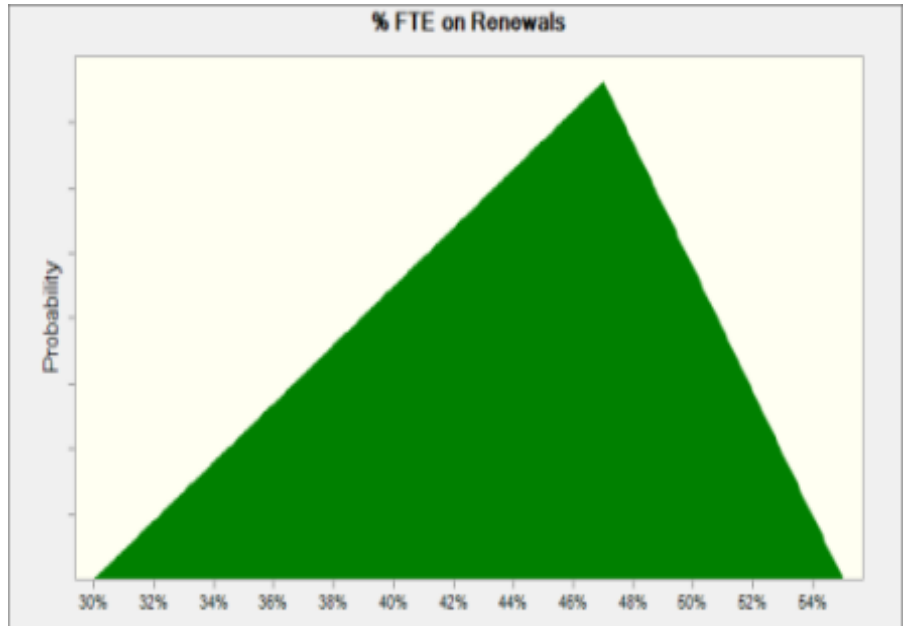
Triangular

Range of Variation:

Minimum: 30%

Likeliest: 47%

Maximum: 55%



Assumption 3: Annual Number of Facilities Impacted (see column 2 in Tables 4 and 5)

Distribution assumed:

Uniform

Range of Variation:

Minimum: -584

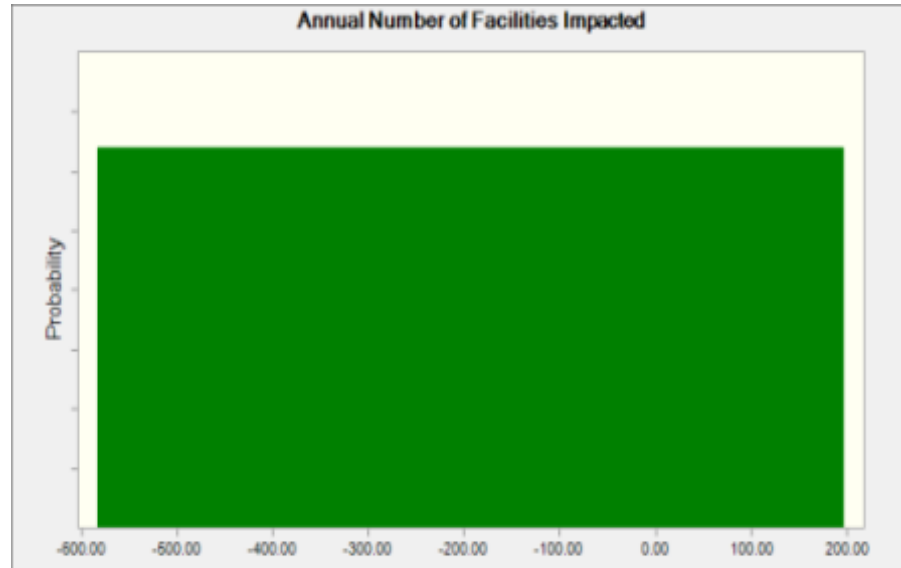
Maximum: 197

Correlated with:

Percent Change from Baseline

Coefficient: 0.99

(Assumption 1, see above)



Assumption 4: Average Cost by Facility to Prepare Permit Renewal (see Table 3)

Distribution assumed:

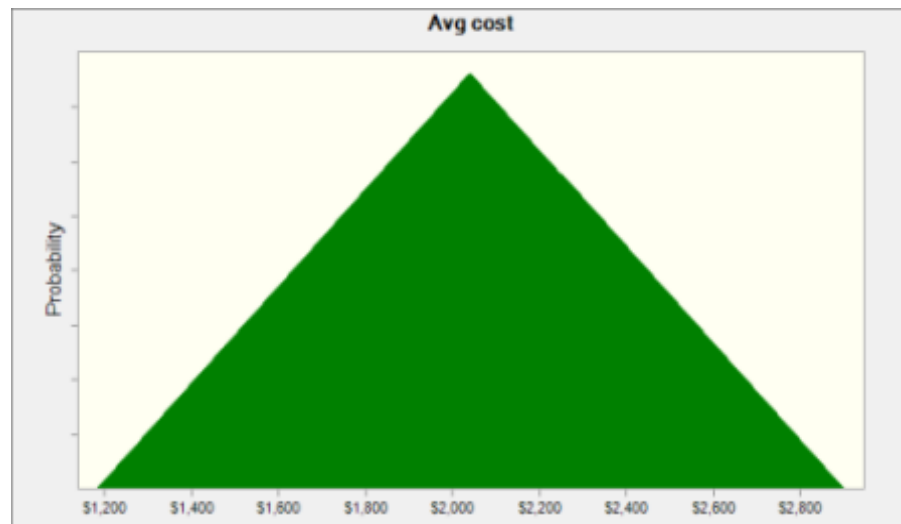
Triangular

Range of Variation:

Minimum: \$1,183

Likeliest: \$2,041

Maximum: \$2,900



Assumption 5: DAQ Permit Engineer Salary and Compensation (see Section VI that discusses the \$640/permit cost estimate for DAQ)

Distribution assumed:

Lognormal

Range of Variation:

Location: \$0

Mean: \$73,475

Std. Dev.: \$2,000

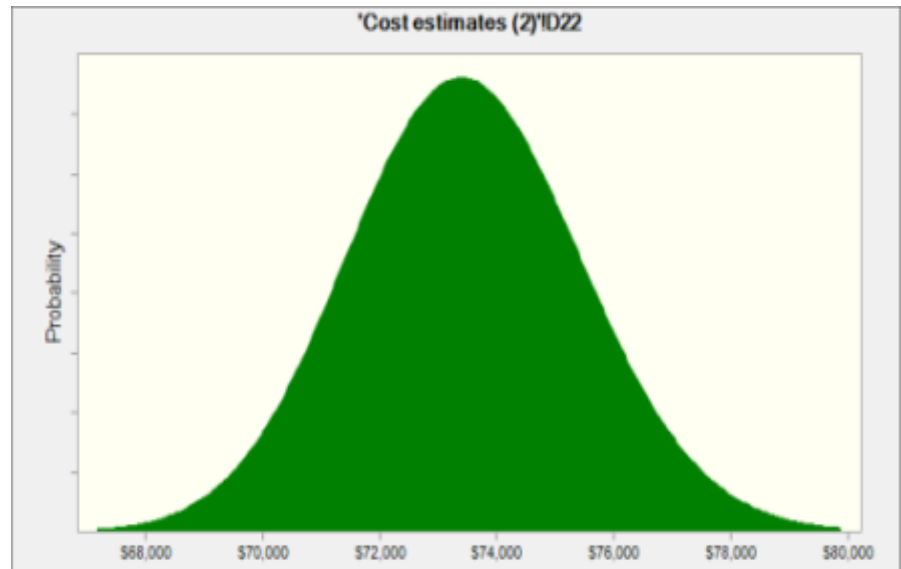
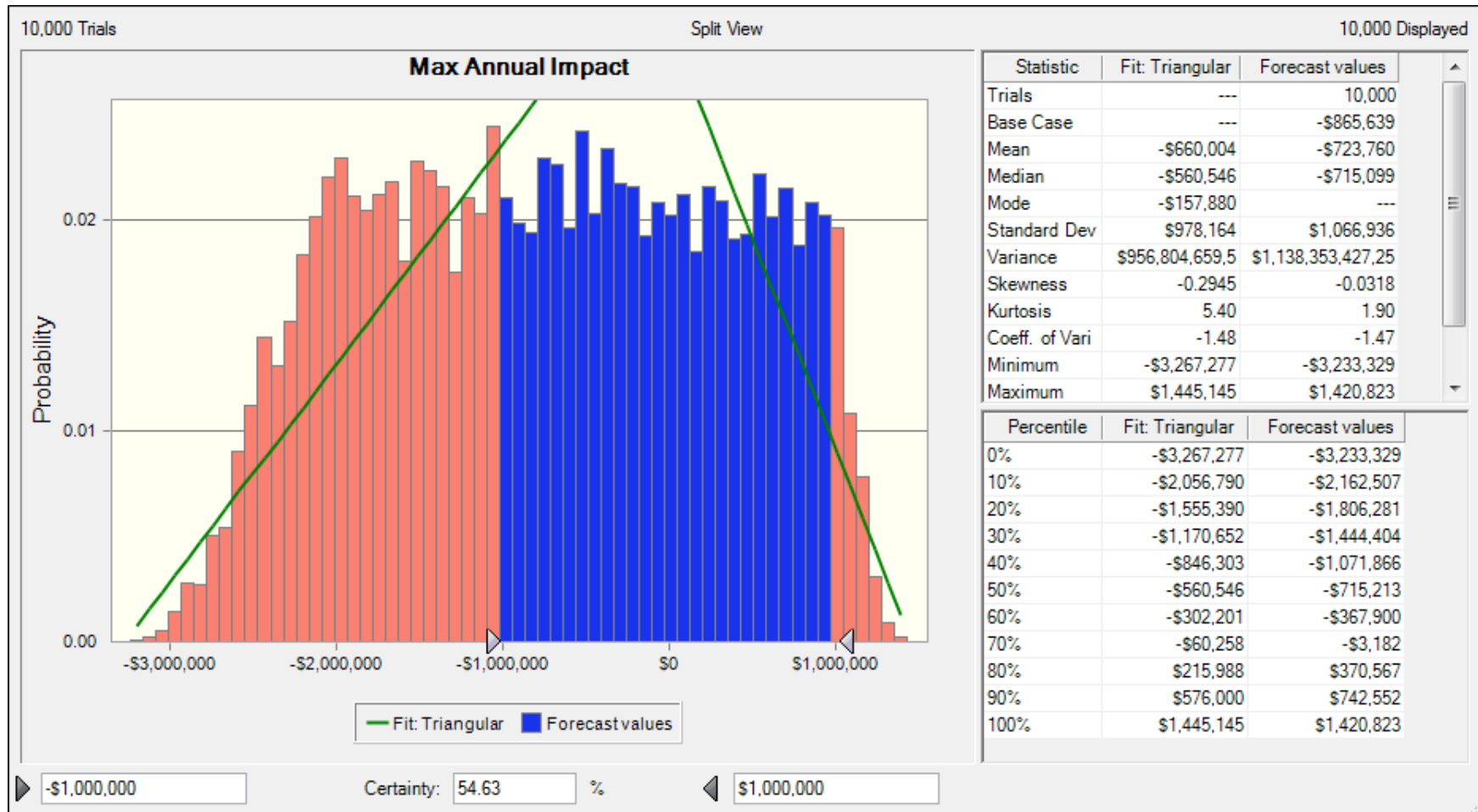


Figure 1. Forecast variability of the estimated maximum annual total economic impact.



The forecast variability illustrates the relationship between the assumptions mentioned above and the variability of the resulting fiscal note impacts. The percent change from baseline variable is strongly and positively correlated with the number of facilities affected. The substantial economic impact conclusion is based on the maximum annual impact distribution showing 55% certainty that the estimate exceed one million dollars in any 12-month period.